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ABSTRACT

Between 1959 and 1975, television replaced newspapers as the public's major source of news. To examine this trend in further detail, a national sample of 1,519 adults were asked to construct diaries of their activities during one day in the fall of 1975. These adults were also interviewed for their use of television news and newspapers. In a static context, the media appeared to follow a supplementary rather than complementary/competitive pattern. In a cross-time context, however, free time increased significantly from 1965 to 1975, while time devoted to newspapers decreased. Moreover, television viewing increased dramatically, particularly among older people. Increased television viewing was found for younger people, but the younger age groups also gave evidence of a "tradeoff" between newspapers and more specialized media (magazines and books). The results suggest that American television's second stage of development, in which news and reality-oriented content increased, made inroads on newspaper reading habits. In its third stage of development, the coming age of more personalized packaging via tapes and discs, television may challenge the specialized media of magazines and books. (RL)

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The Changing Role of Newspapers in the Age of Television

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JOHN P. ROBINSON and LEO W. JEFFRES are members of the Department of Communication faculty at Cleveland State University. Some data in this report appeared in "Daily News Habits of the American Public," *News Research Report No. 15* (Washington: American Newspaper Publishers Association Foundation, September, 1978) and some will appear in John P. Robinson and Leo W. Jeffres, "The Changing Character of the Daily News Audience," *Journalism Quarterly* (in press).

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THE INTRODUCTION of television three decades ago resulted in many changes in the structure and tempo of American daily life. In describing the initial stage of The Age of Television, Bogart (1956) identified radio and movies as the daily activities most affected by television. Bogart, and others, argued that these activities were those most "functionally equivalent" to television not only in content but also in terms of the social nature of the activity itself. On the other hand, the print media affected appeared to be limited to those which featured content functionally equivalent to that portrayed on television: non-serious fiction, entertainment magazines and the like. This functional equivalence argument has been reported and amplified by several other observers and authors as well (e.g., DeFleur 1967; Weiss 1969; Cherry 1971).[1]

According to these early studies of television's impact, newspapers appeared relatively immune to the onslaught of television. Some observers (e.g. Belson 1961) did argue that newspapers had made subtle adjustments in order to maintain their momentum in relation to television by using more pictorial content, shorter stories and simpler formats. Nonetheless, from the functional equivalence perspective, the two media still appeared to meet different or perhaps supplemental audience needs. Thus, in his subsequent article "Newspapers in the Age of Television," Bogart (1963) concluded, "Of all the media, daily newspapers appear to have been least affected by the growth of television." He noted how per capita circulation had reached an all-time high at the time—attributable in part to higher levels of education, real income and metropolitan concentration in the public. These social trends have, of course, continued to prevail in the 1970s.

However, since the early 1960s, television has significantly enlarged its news coverage, as well as its non-entertainment or reality-oriented programming generally. Network news programs grew

from 15 to 30 minutes. In the early 1970s, aided by the entry of market research expertise into its packaging and programming, local television news expanded even more significantly (Powers 1977). Bogart (1975) reported that the average station by the mid-1970s aired one hour of network news and more than two hours of local news.

Although it is not clear how much this expanded news programming was responsible, the proportion of the population citing television over newspapers as their major source of news over this period has increased dramatically. Television moved from a 6-percentage point deficit in relation to newspapers in 1959 to a 2-point deficit in 1964 to a 9-point lead in 1967, a 12-point lead in 1971 and a 15-point lead in 1976 (Roper 1977). Although several problems have been raised with regard to the interpretation of the Roper question used to index this preference for television as a news source (e.g., Bagdikian 1971; Bogart 1975), the more relevant issue is the relation of these perceptions to behavior.[2] Can we verify whether these perceptions actually reflect behavioral shifts in public use of newspaper and television for news? If so, does this mean that newspaper and television have entered a new "second stage" of interrelationship — one of competition and zero-sum conflict rather than one of independence or supplementarity.

In this second stage, one sees television moving beyond its superiority in presentation of entertainment-fantasy content to challenge newspapers as a conveyor of news and reality-oriented content. While it is clear that newspapers contain much more news information and also provide the necessary explanatory background for the audience to comprehend news stories, for average audience members that may be "more than they ever wanted to know." As the tabloid press before them, television news can gatekeep to minimize the news content to which the audience feels it has to attend. Unlike local newspapers, local TV news in the 1970s not only had a sophisticated audience research industry available to help package news content in a publicly palatable format, but a management willing to accept their recommendations (Powers 1977). For the audience member interested in the reassurance function of news, the pleasant headline service provided by television news may be quite sufficient.[3]

Much evidence does suggest that the daily newspaper habit is now

in a period of real decline. It shows up most vividly in per capita circulation figures, but also in those few national surveys of newspaper reading that have employed common questions over the years. In the NORC General Social Survey's most recent (1978) survey, only 57 percent of the sample said they read a newspaper every day, down from a 1977 figure of 62 percent, a 1975 figure of 66 percent, a 1972 figure of 69 percent, and a 1967 figure of 73 percent. This compared to the 77 percent of a 1975 national survey who reported that they read at least one paper a day (Davis 1958); of these 27 percent claimed to have read more than one paper every day, compared to 18 percent in a 1977 survey (Bureau of Advertising 1978).

Several researchers have attempted to explain the newspaper decline in terms of demographic shifts in the population: the increase in single person households (Bogart 1975b),[4] the decline in home ownership (Denbow 1975; Stone 1978),[5] the fractionation of cities mainly resulting from white migration to the suburbs (Bogart 1975), the increased entry of women into the labor force (Bogart 1975) and the increased subscription cost of newspapers (Bogart 1976).[6] On the other hand, two of the major predictors of newspaper reading noted by Bogart and replicated in almost all (single-time) readership studies—education and real income—have increased markedly over the last decade. Rather than a period of stagnation or decline, the upward prosperity of newspapers that Bogart described in 1963 should have then continued.

The major demographic factor that has been cited for the decline, however, is the factor of age. Indeed, most (single-time), surveys reveal greater differences in daily newspaper reading across age groups than by factors such as education and income. In other words greater differences in reading are found between 18-24 year-olds and those aged 65 and over than between highest and lowest income groups or between college graduates and those whose education finished before high school (See Table 1). It is, moreover, the age factor that so highly correlates with home ownership.

There is yet another factor that has been cited, one perhaps even more fundamental than age. That is the resource of time, or more properly the scarcity of time. Contrary to the 1960s projections that America was becoming a "leisure society" (e.g., Kahn and Weiner 1967) or that media time was inelastic (Bogart 1963), concern has been raised instead of our becoming a "harried leisure class" (Lin-

der 1970).[7] In his description of the post-industrial society, Daniel Bell describes a similar scenario: In the post industrial society, free time becomes subject to measurement and allocation and the yield on time in those activities is brought into parity with the yield on working time. The specter of constrained free time was also raised by McCombs (1972) in his documentation of how media and media advertising have continued to maintan a constant share of the resource of money in this country (as reflected in their proportion of our country's Gross National Product since the 1920s) rather than to increase this share as new media technology became available. Scarcity of time among busy young adults would provide a further explanation for their aversion to newspapers.

This report directly addresses the relation between newspaper use and scarcity of time, as operationalized by its obverse – amount of free time. It does so in an across-time context in which identical procedures for estimating public uses of time were employed over the decade 1965 to 1975. Perhaps the major obstacle to understanding how news media habits have changed has been the lack of media studies which have employed procedures and questions common to those used in earlier research. Even if the questions may appear identical, the reporting time frame in these various media usage questions, for example, varies from a week to a year, from "regularly" to a "typical day."

Another limitation of the available survey evidence on media habits until recently was that they tended to examine each medium in isolation from the others. Newspaper marketing studies often failed to include questions (or precisely worded questions) on the respondent's use of television or magazines. Respondents in single-medium surveys, like most surveys, may also "help" the interviewer or researcher by describing themselves as heavy users of the medium in question.

The result is a paucity of reliable social indicators to identify national trends in mass media use across the last 10, 20 and 30 years. This is particularly important because subtle and complex media trends or effects often take many years to develop.

Procedures

The method used in the present study minimizes several of these methodological limitations by virtue of its attempt to exploit the el-

egant measurement properties of the variable of time. All media use is measured on the same ratio-scale metric of time. There is, moreover, the homeostatic "systems" perspective which would predict that changes in one use of time must be reflected in other uses of time.

Respondents participating in the present time-diary study were first asked to describe all of their activities from midnight to midnight for a particular 24-hour day, a period over which respondent memory problems should be minimal. By limiting reporting of activities to a one-day-at-a-time basis, activities must sum to 24 hours.[8] This open-ended approach then leads to a continuous and flowing account of how each of the media fit into each person's day, using a common criterion of reporting.

Each activity reported by respondents was then coded into one of 96 mutually exclusive and exhaustive categories[9] (Szalai, et al. 1972), one of which is for newspapers (Code 95) and one for television (Code 91). However, while these procedures do gauge media use on a common scale in terms of activity priorities assigned by the respondent, time devoted to media in the diaries does generate rather conservative estimates of actual mass media usage, even after secondary activities are included. Respondents neglect to include quick glances at a headline or brief snatches of a television program as they reconstruct the more prominent events of their day. For this reason, the estimates of media time from the diary need to be supplemented by asking respondents additional independent questions about their use of each of the various media on the diary day in question. At the completion of their report of the full day's activities, then, respondents were asked "Did you read a newspaper yesterday?" or "Did you watch any news programs or documentaries on television yesterday?" Having already described the activities of their day in considerable detail should also enhance the accuracy of respondents' recall of media use rather than being asked such questions without time or opportunity for further reflection on the previous day's activities.

In the present study, a national probability sample of 1,519 adults aged 18 and over were asked to construct a 24-hour diary of their previous day's activities in the Fall of 1975. In-person interviews were conducted by the Survey Research Center of the University of Michigan across all days of the week; estimates of media use

in the present analyses have been weighted to correct for day-of-the-week differences where they exist. The supplemental questions concerning the respondent's use of television news and of the newspaper were asked for the diary day in question.

These respondents then became part of a telephone panel, in which they were interviewed at three additional times across the next year. In each telephone interview, respondents again reported on another full day's activities; interviews were organized to include weekdays and weekends for each respondent across the year. At the end of the period, a total of 978 of the original respondents had provided sufficient diary information to estimate a "synthetic week" of 168 hours of activity generated from activities for two weekdays muliplied by 5/2 added to the activities for one Saturday and one Sunday.[10] In the third wave (conducted in May and June of 1976), respondents were again asked supplemental questions about their exposure to television news and newspapers on the diary day in question.

An earlier source of time-use data is also employed in the analyses which follow, namely the time-use study done ten years previously using virtually identical diary procedures and supplemental questions on media use. This 1965-66 study was, however, restricted to the urban employed segment of the population (aged 18-65). Thus, in order to make exact cross-time comparisons, the 1,218 respondents in the 1965-66 study were compared to the 786 respondents in the 1975-76 study who met these criteria. The 1965-66 study was restricted to one interview per respondent.

However, the unique cross-time data on exposure and amount of media use on particular days from the two studies can be used to explore several hypotheses about the functional equivalence of newspapers and television news. Thus, to the extent that they are interrelated in a non-competitive fashion:

Hypothesis 1: Demographic groups (e.g., the young, the better-educated) which make use of one news medium should be more likely to use the other news medium. (Particular emphasis is given to the examination of the newspaper habit of young adults.)

Hypothesis 2: Individuals who make use of one news meduim should be more likely to make use of the other news medium. (Age differences again are emphasized.)

TABLE 1

ADJUSTED DIFFERENCES IN DAILY NEWSPAPER AND TV NEWS USE IN 1975-76
(Waves 1 and 3 combined)

	Percent Using Yesterday	
	Newspaper (N=2,444)	TV News (N=2,444)
TOTAL	68	52
AGE:		
18-24	51	36
24-29	51	38
30-39	66	45
40-49	67	48
50-59	79	64
60-65	87	68
66 and over	90	73
EDUCATION:		
Grade school	51	42
Some high school	64	48
High school grad	73	53
Some college	73	52
College grad	74	54
INCOME:		
Under $5,000	53	51
$ 5,000 - 9,999	65	51
$10,000 - 14,999	72	52
$15,000 - 24,999	74	51
$25,000 and over	75	49
RACE:		
White	68	51
Black	58	50
SEX:		
Male	70	52
Female	67	50
POPULATION OF PLACE OF RESIDENCE:		
Over 2 million	68	58
100,000 - 1,999,999	73	55
10,000 - 99,999	68	45
2,500 - 9,999	66	49
Under 2,500	66	49

Hypothesis 3: Usage of both newspaper and television news should mutually increase or decrease as a function of available free time.

These hypotheses are examined not only in static demographic and individual context, but in dynamic cross-time contexts as well. To supplement these analyses the specific free-time activities that newspaper readers appear to trade off for the time devoted to newspapers are examined. Of particular interest here is the hypothesis that patterns of newspaper reading are related not only to patterns of television use but to other free time activities, particularly to the other print media of books and magazines. Additional data on monetary expenditures and on attitudes toward various free time activities will be examined as they bear on the role of newspapers in a changing information and leisure environment.

Results

Hypothesis 1: Members of demographic groups who use one news medium are more likely to use the other.

While the results are mixed, they are generally supportive of this hypothesis. The proposed pattern holds most strongly for the demographic factor of age, less strongly for the factor of education and sex, and not at all for the factors of income, race and urbanicity. The data are shown in Table 1, in which responses for the Wave 1 and Wave 3 panels to the supplemental questions have been combined to increase the effective sample size to over 2,400 respondent days.[11]

In order to inject additional stability into the results, the data have also been adjusted by Multiple Classification Analysis (MCA), a dummy-variable multiple regression program that generates estimates of each predictor of news usage controlled for the other predictors in Table 1 (Andrews, Morgan and Sonquist 1969). In other words, the 75 percent newspaper usage rate of people of over $25,000 income has been corrected for the tendency of this group to be better-educated, older and residents of less rural areas.

The strong relations between age and newspaper use in Table 1 do underscore the recent concern over the particular aversion of young adults to the newspaper. Barely half of both the 18-24-year-old and the 25-29-year-old groups reported reading newspapers on the day in question, compared to 87 percent of the 60-65 year-olds and 90 percent of those over age 65. However, the differential in

exposure to TV news across these age groups is just as dramatic, from 37 percent of the under 30s to over 70 percent of those aged 60 and over. While the under 30s have been characterized as a generation uninterested in newspapers, it may be more apt to view them as a generation uninterested in news.

Moreover, roughly the same pattern by age held in the 1965-66 study. When compared in Table 2 with the urban employed portion of the 1975-76 sample, the 18-24 and 55-64 age groups in 1965-66 reported virtually identical exposure to newspapers. In use of the two news media in the 1965-66 study, however, the most pronounced age gap was between the 18-24 and 25-34 age groups; the sharp age breaks found in the 1975-76 study occur for older age groups.

Nonetheless, the 18-24 age group reported less exposure than older respondents to both news media in both 1965-66 and 1975-76.

TABLE 2

DAILY NEWS EXPOSURE
PATTERNS BY AGE: 1965-66 AND 1975-76

(Estimates have been corrected by MCA for education, income, sex, race, employment status and day of the week)

	Read Newspaper on Day			Watched TV News on Day		
Age	1965-66 (N=1,148)#	1975-76* (N=786)		1965-66 (N=1,148)#	1975-76* (N=786)	
Total	78%	67%		46%	52%	
18-24	59%	59%	0%	38%	42%	+ 4%
25-34	74%	62%	-12%	46%	47%	+ 1%
35-44	81%	73%	- 8%	49%	44%	- 5%
45-54	86%	73%	-13%	47%	59%	+12%
55-64	86%	84%	- 2%	48%	65%	+17%

*Urban employed portion of the national sample.

#The supplemental media questions were not asked of a random 10% of the 1965-66 sample.

In fact, the major trend in Table 2 is for increased TV news exposure among people over 45, a trend evident on a cohort basis as well as a straightforward age comparison. In the 45-54 age group, the 12 percentage point increase in TV news exposure stands alongside a 12 percentage point decline in newspaper exposure. More than any other age group this one mirrors the overall shift of declining newspaper reading (-11 points) and increasing news viewing (+6 points). To the extent that a trade-off of newspapers for TV news across time is suggested, it is concentrated among people now over age 45 rather than among younger ones.

It should be noted that the exclusion of unemployed people in the Table 2 comparisons may underestimate the overall population differences across age groups. Unemployed people paid less attention to both news sources in the 1975-76 data, and unemployed people are concentrated in the younger age group. Thus the lower use of news media among today's young people may simply be a function of their greater unemployment, but this statistical explanation does not alter the fact that young people do follow the news less closely.

Hypothesis 2: Individuals who use one news medium are more likely to use another.

This hypothesis is also supported, indicating an ecological correspondence between aggregate and individual-level results. There is a Tau-beta correlation of .18 between individual use of newspapers on a particular day and individual exposure to TV news in the Wave 3 data for 1975-76. This correlation is reflected in the 75 percent use of newspapers among those who watch TV news compared to only a 59 percent rate among those who did not. These figures are shown in Table 3, which also indicates that the relation holds at roughly the same level in all age groups. In other words, no tendency towards increased specialization or fractionation in news media use is apparent among the under 30s, which would have indicated that television news was supplanting newspaper use (or the reverse) among this age group.[12] As Table 1 suggested, there simply are fewer young people who follow the news in either source.

Hypothesis 3: Usage of television news and newspapers should covary with amount of free time.

In contrast to the general pattern for the first two hypotheses, there is far less support for this one. To examine this relationship

TABLE 8

RELATIONS BETWEEN TV NEWS VIEWING AND NEWSPAPER READING
(Wave 1 sample only)

	Percent of TV News Viewers Reading Newspapers	Percent of Non-Viewers Reading Newspapers	Tau Beta Correlation Between Newspapers and TV News
Total (N=1,404)	75%	59%	.18
Age:			
18-24 (189)	67%	49%	.19
25-34 (349)	66%	53%	.13
35-49 (424)	77%	62%	.18
50-64 (442)	81%	70%	.14

requires an operational definition of that ultimately elusive resource, "free time." Although it can be argued that only individuals themselves know when their time is free, the time-diary method does provide a clear if flexible way of operationalizing free time (Robinson 1977). This is derived in terms of activities themselves, following the convention adopted by time-use researchers in Eastern European socialist countries (Szalai, *et al.* 1972). Free time includes all diary activities that are coded as adult education, participation in voluntary organizations, out-of-home entertainment, visiting, recreation, hobbies, relaxation and mass media use.[13] It should be noted that omitting from free time the "semi-leisure" activities of education and organizational participation does not lead to differing interpretations than the ones reached here.

The most persuasive argument against the third hypothesis comes from the simple 1965-1975 comparisons (Robinson 1978). During that decade, the amount of free time recorded in the diaries of respondents increased from 34.8 hours per week for the 1,218 respondents in the 1965-66 study to 38.5 hours per week for the comparable group of 786 urban-employed respondents in the first wave of the 1975 study. Despite the overall increase of more than 10

percentage points in free time, *the amount of* time reported reading newspapers as a primary activity decreased, from 2.6 hours on a weekly basis in 1965 to 1.7 hours per week in 1975. Nor was this decrease attributable to an increase in reading as a secondary activity, which was reported at about the same level as in 1965.

Over the same time period, the amount of time devoted to all content on television increased markedly, from about 10 hours per week in 1965 to about 15 hours per week in 1975-76. As shown in Table 2, the supplemental respondent questions indicate the proportions watching television news increased only from 46 percent to 52 percent, a less dramatic increase than that recorded for all television viewing in the diaries. However, this source of data also concurs on the point that during a period in which free time

TABLE 4

CORRELATIONS BETWEEN TIME SPENT IN SINGLE FREE TIME ACTIVITIES WITH AMOUNT OF FREE TIME AVAILABLE

Time Spent	Correlation with Amount of Free Time	
	Total Sample (N=1,451)	People Under Age 30 (N=384)
Watching television	.43	.30
Free time travel	.43	.55
Studying and education	.37	.52
Visiting with others	.33	.34
Sports and recreation	.29	.27
Hobbies	.27	.24
Radio	.24	.28
Book/magazine/general reading	.20	.08
Organizational activity	.19	.15
Rest and other passive leisure	.17	.10
Newspaper reading	.15	-.03
Religious activity	.12	.06
Going to bars, parties, etc.	.14	.20
Going out to movies, sports events, etc.	.03	.17

increased significantly, use of the newspaper declined while use of television news increased.

There is additional supporting evidence for the argument that newspaper usage need not be strongly dependent on free time. For example, in both 1965-66 and 1975-76 younger adults who are least likely to spend time with the newspaper actually have more available free time than do older adults.[14] College graduates and high income groups who are heavy newspaper readers have no more free time available than do those with less education and income. Unemployed people have an abundance of free time but do not turn to the newspaper as a way of using this time. Women read newspapers at a slightly lower rate than men, yet have slightly more free time.

There are two important groups for whom the expected relation between free time and newspaper reading seems to hold on a proportionate basis and in the aggregate: retired people and people who work. As people work longer hours, they do report less newspaper reading in their 1975 diaries. However, the important watershed occurs at half-time work, i.e., 20 hours a week. Employed men and women who work more than 40 hours a week report about the same time reading papers as those working 20-40 hours per week. While providing some support for the argument that the entry of women into the labor market has had an adverse effect on newspaper reading, this finding suggests that these effects are mainly confined to women whose work weeks exceed 20 hours a week (Quarles and Robinson, 1979). That is, no matter how long their work week, most employed people do manage to find the same time to read the newspaper.

Retired people, with about the same amount of free time as (and not too much more income than) the unemployed, report almost four times as much newspaper reading as the unemployed. In other words, retired people spend a somewhat higher proportion (almost 5%) of their free time on newspapers than do either employed adults (about 3%) or unemployed adults in the pre-retirement years (about 1%). For those past retirement age, newspaper reading does seem to be more of an ingrained habit than among younger people with unusually large amounts of free time.

However, these are the exceptions. At the individual level, the Table 1 and 2 differences by age are virtually unchanged if free time is added as a predictor. The relative inelasticity of newspaper

reading vis-a-vis free time is further reflected in the small correlations between newspaper reading and total free time shown in Table 4. This correlation of .15 is one of the lowest in the table, with only religious activity, going to bars and parties, and other out-of-home entertainment showing a weaker tie to the amount of free time available. The correlations indicating the strongest tie with amount of free time are television, free time travel, visiting with others and educational activity. While some of this correlation may be built in due to the large amounts of time that television and visiting contribute to free time, newspaper reading still is well behind other activities in which equivalent amounts of free time are spent: free time travel, educational activity, sports and recreation and hobbies. It is also correlated somewhat lower than the other media activities of book-magazine-general reading and radio listening.

Moreover, the right-hand column of Table 4 shows that similar patterns in general hold for people under age 30. Among these young adults, however, newspaper reading shows a very slight but negative correlation (-.03) with amount of free time, making it the free time activity least dependent on having free time available. In other words, people under 30 with more free time spend less than average amounts of time with newspapers. People under 30 with more free time are also less likely than older people to devote that time to the other mass media: television, books and magazines.

Newspaper Use and Other Free-Time Activities:

Table 5 indicates that in addition to its relative lack of constraint by amount of free time, time spent with the newspaper is not monotonically related to participation in most individual free time activities. These results are derived by using MCA to predict newspaper reading as a function of time participating in the 13 other free-time activities, as well as the six major demographic factors shown in Table 1.

Greater use of newspapers is actually positively related with certain activities, despite the built-in "zero-sum" property of these measures of time, i.e., the more time that is spent reading newspapers the less must be available for some other free time activity. Thus, newspaper reading time is slightly higher than average among those who report moderate to heavy participation in certain

TABLE 5

TIME SPENT READING THE NEWSPAPER AS A FUNCTION OF TIME SPENT IN OTHER ACTIVITIES
(After control by MCA)

Total sample (N = 1451) Mean = 100 minutes per week

Activity*	High	Medium	Low	None	Pattern
Education and study	75	92	93	102	--
Organizations	143	84	120	99	+
Religious activity	75	105	94	102	None
Entertainment	90	104	97	100	None
Visiting, conversation	101	100	103	77	+
Other social	98	104	90	101	None
Recreational	72	82	105	109	--
Hobbies	97	100	86	103	None
Radio, records-tapes	98	101	112	98	None
Television	105	102	80	107	None
Books, magazines	120	109	116	86	++
Rest, relax, other	90	102	105	99	Curvilinear
Travel (free time)	92	105	98	89	Curvilinear

*Amounts of time defining high, medium and low time for each activity vary due to the fact that greater participation is reported for some activities than others. The "high" for television for example is over 16 hours per week compared to 8 hours and over for hobbies.

activities outside the house (especially in organizational participation and visiting), and in using the other mass media (radio, television and other reading). These clusters of results suggest two important features of the life styles of newspaper readers: a) they are well integrated into community and social networks and b) they are fairly regular users of other mass media rather than using newspapers as a substitute or competitor for these media (much as Table 3 shows for TV news.)

The stronger of these positive relations occurs for book and magazine reading, not an unusual finding given the similar social na-

ture of the two activities, but the opposite of what one might expect from a straightforward prediction from the functional equivalence argument. We examine cross-time data below that do suggest a more competitive pattern between these two types of reading.

Which activities do follow the expected, and naturally imposed, negative relation with newspaper reading—the ones that people appear to give up or trade off for the time devoted to the newspaper? The data do not suggest any strong candidates for functional equivalence among the free-time activities (although people who take adult education courses or participate in recreation do devote less time to the newspaper, again with the related factor of age being controlled for both variables). It is interesting, then, that two of the most strenuous and competitive activities in Table 4 in terms of physical demands and concentration, are the ones that appear to compete or interfere with newspaper reading. This is somewhat contrary to the portrayal of newspaper readers as "variety seekers," at least in out-of-home settings.

The fact that greater newspaper reading is not related to less television viewing in the static Table 5 data is of course contrary to what was suggested in Table 2 and in the overall 1965-75 cross-time comparison. Here it will be remembered that over this decade, television time as well as TV news viewing went up while newspaper time declined. The same "inconsistency" is apparent in the positive correlation between newspaper reading time and book-magazine-general reading time in the static Table 5 data. For like television (and unlike newspapers), book-magazine-general reading increased from 1.6 to 1.9 hours per week between 1965 and 1975 in people's diary reports. In the supplemental questions about all "reading of books, magazines, and other reading matter," the proportional increase was from 43 percent to 51 percent on the diary day in question between 1965 and 1975. These increases were not as dramatic as for television, but it is clear that, just as for the argument over free time, one cannot look to general declines in reading as an explanation for the declining time spent with the newspaper.

Moreover the cross-time comparison in the two types of reading by age further suggests something of a competitive interplay between the two. Examining simply the static 1975 data in Figure 1 suggests that there is a strong interaction effect between newspaper reading and book-magazine reading by age: while younger people

(under age 40) spend far more time with books and magazines than with newspapers as their print medium, people older than age 40 spend slightly more time with newspapers. However, the addition of the 1965 data to the figure suggests an alternative explanation: the increases in book and magazine reading (for the three youngest age groups at least) closely parallel the drops in newspaper time that occurred during the same period. (Importantly, the decline in newspaper reading is greater than the increase in book-magazine reading.) However, a more interesting trade-off is suggested for the 50-64 age group: The 79-minute weekly decline in newspaper reading in this group ($t = 2.0$, p less than .05) is offset by only a one-minute-a-week increase in book-magazine-general reading. With all four relations with age in Figure 1 in view, then, the preference for print media other than newspapers by younger adults in 1975 can be explained by across-the-board decreases in newspaper reading and increases of other print media of the magnitude found. The more remarkable result in Figure 1 thus becomes the heavier decrease in newspaper reading time among an age 50-64 group that did not appreciably increase its reading of books, magazines or other matter. Since we have seen in Table 2 that this is an age group which reports average increases in TV news viewing between 1965 and 1975, it could be that television has also fulfilled the role and functions for older people that magazines (particularly new "specialty" magazines) and books are fulfilling increasingly for younger ones.

TABLE 6

DIFFERENCES IN WEEKLY TIME DEVOTED TO READING AND TELEVISION: 1965-1975

Age	Total Reading	Total Television Viewing
18-29	-0.5 hrs./week	+3.6 hrs./week
30-39	-0.6 hrs./week	+4.2 hrs./week
40-49	-0.9 hrs./week	+5.0 hrs./week
50-64	-1.3 hrs./week	+7.5 hrs./week

The interpretation of the possible incursion of television into reading time for older respondents becomes strengthened when we sum the newspaper and book-magazine-general reading times and examine changes in total reading time in the context of changes in total television viewing within each age group in Table 6. While increases in television viewing and decreases in total reading are visible within each age group in Table 6, these television increases and reading decreases are monotonically greater for each successively older age group. Thus, these data suggest that it is older people rather than younger people whose media behavior has been subject to socialization by television over the last decade. Younger people now show a different mix of newspaper vs. book-magazine-general reading, but their overall reading and television viewing have remained much more stable than for older people.

Summary and Implications

The preceding analyses suggest that relations between newspaper reading, use of other mass media and free time in general differ in dynamic and static contexts. In the static (single-time) context, use of the various media follows a supplementary rather than a complementary-competitive pattern. People who read newspapers are more likely to watch television news programs, a relation that holds both at the individual level and across aggregates of the population; the relation also holds controlling for the factor of age, the major background predictor of exposure to news in both media. Moreover, people who spend more time reading newspapers are also more likely to read books, magazines and other printed matter and are no less likely to use the broadcast media of television and radio. Heavier newspaper readers are also more likely to spend time socializing with other people (both in formal organizations and informally) but less time in the more competitive activities of adult education and outdoor recreation. Nor does newspaper reading appear to be markedly constrained by the amount of free time that people have available, or constrained to the extent that most other free-time activities are. This set of results can be seen as consistent with the research conclusions about the independence of newspapers made by Bogart and others in the 1950s and early 1960s.

When one moves to the cross-time context, however, a rather different pattern of relations emerges. In a 1965-1975 period during

which free time increased significantly, time devoted to the newspaper declined. Moreover, time devoted to television increased dramatically, particularly among older people. The same phenomenon applied to viewing news on television, the type of "reality-oriented" content that has been upgraded on television in terms of audience appeal and that one would expect would most directly compete with the major content of newspapers.

Increased television viewing was also found among younger people over the decade, but younger age groups also gave evidence of a "trade-off" between newspapers and other print media over that period. Reading of books, magazines and other matter also shows increases over the decade, although not at as great a time-consuming rate as for television. This gravitation toward more specialized print media is less evident among people aged 50-64 (than among those aged 18-29, 30-39, or 40-49), which could indicate a direct functional trade-off of newspapers for television among this oldest age group. Among those under age 50, the suggested trade-off of newspaper time for other print media across the decade was not concentrated more among those aged 30-39 or 40-49), this again is contrary to the picture that emerges from examination of the static 1975 data, in which younger people spend markedly less time reading newspapers than books and magazines. Across time, then, these print media trade-offs occurred rather evenly within each of the age groups under 50.

It is, of course, difficult to determine the exact nature of functional trade-offs between media activities unambiguously with the data at hand. They are available for only two points in time, and even more importantly do not reveal the specific media content that people attend to and are not available for the same people across the time period in question. Nonetheless, it is clear that the principles that govern interrelations at single points in time (or a week's activities across a year, as in the present study) can diverge widely from those that characterize cross-time trends in uses of the mass media. Functional equivalence appears to apply far more to changes in media use than to the supplementary functions across media that are found for particular individuals on a single day or for a particular period.[15]

Nor do these audience processes of functional equivalence or trade-off necessarily hold at the community level. Bogart (1975)

documented the case that evening TV news does no better in areas where newspapers lost circulation than in which they gained circulation. He identified the key factor involved in increasing newspaper circulation in a community to be the quality of newspaper coverage, rather than the time of day it arrives. Here again the availability of content not shown on television can be seen as related to a newspaper's ability to survive or flourish in the age of television.

Furthermore, there are signs of certain changes in media usage since the point of our last survey—1975-76. Indeed that year may have marked an important watershed in public use of the media. As described at the outset, the General Social Survey of the National Opinion Research Center (NORC) of the University of Chicago has documented a 9 percentage point decline in the public's reported daily use of the newspaper between 1975 and 1978. While the NORC question asks respondents to estimate the general frequency of their newspaper reading, rather than inquiring about use on a specific day or week, the dramatic decline in estimated frequency indicates a more precipitous decline in newspaper use since 1975 than Table 2 suggests occurred between 1965 and 1975.

Moreover, the NORC data now show a pronounced "generation effect"—the tendency of youngest adults to read newspapers at a lower rate than previous generations of adults at that stage in their lives (Meyer 1977). Meyer found that between 1975 and 1977, the percent of 18-30 year olds claiming to read the newspaper daily dropped from 51 percent to 42 percent, and those aged 31-43 from 68 to 60 percent. Examination of the 1978 NORC data reveals much the same pattern of differentials, namely a greater decline among the younger age groups (particularly those aged 30-39). It is, of course, too early to gauge the relation of these reports to actual use of the newspaper or to circulation figures.

There have been reports of declining use of television since 1975 as well. Roper (1977) found people estimating that they watched an average of 173 minutes per day in 1973 compared to 182 minutes per day in 1974. Using much the same question, the NORC General Social Survey detected a drop in average viewing from 183 minutes per day in 1975 to 167 minutes in 1978. The Nielsen organization has also reported viewing declines since 1974, especially in their Fall 1977 viewer counts, but it is not clear whether this conclusion could be explained through failure to apply

sufficient methodological controls—the eventual source of reports in declining viewing made some years earlier. Nonetheless, although ambiguous in the direction of the trend or largely based on general respondent estimates, these data clearly do not provide any reason to expect television viewing to have increased much since 1975, especially not to the extent that it did between 1965 and 1975. Nor is there any indication that TV news viewing has increased, at least for the major network news programs.[16]

Does this mean that media use has either reached an asymptote or begun its transition to "the end of mass communication" that McCombs proposed after his comprehensive review of consumer expenditures of money for media between 1929 and 1978? Several characteristics of time expenditures should make one cautious about suggesting either such no-growth scenario.

First, the resource of time itself seemed to be bound by "laws of constancy" in mid-1960s America. At that time, the work week had not decreased significantly and free time had not increased over that found in time-use studies done 20 to 40 years previously. Such evidence as was available indicated few changes in newspaper, book or magazine reading habits since the 1950s. There was even convergent evidence from several sources that television had reached a plateau, including evidence that American set owners spent no less time viewing than set owners in Eastern and Western European countries where television was in a much earlier phase of diffusion with on-air broadcasting for only a few hours a day. As Tables 2 and 6 attest, the intervening 10 years have witnessed a remarkable shake-up in this placid and predictable picture of the role of television in American daily life.

Second, there is evidence that even the economic constraints on media that McCombs described have loosened slightly over the same decade. There has been an increase of the overall proportion of GNP spent on recreation from 6.0 to 6.8 percent, and the proportion spent on mass media shared in that rise from 2.7 percent in 1965 to 3.2 percent in 1975.[17] This rise could be traced to increases in the radio-TV receiver category (rather than to increases in cable TV fees, which are not included, or in radio-TV repair, which declined); it could also be traced to increases in movie revenues and in the newspaper-magazine-sheet music category (presumably by our time-use estimates due more to increases in magazine revenue than to newspaper increases). While these shifts are not of sufficient

magnitude to refute McCombs' economic constancy hypothesis, the 1965-1975 increases in spending for recreation are consistent with the increased free time available as reported in peoples' time diaries.[18]

This also means that the time scarcity problem identified separately by Linder and Bell, and that guided McCombs' speculations about the constraints on media, may have become generally inoperative in the context of the 1975 time use data. How much additional free time went to television because of the greater functional gratifications it provided and how much because of default (i.e., because people had nothing better to do when their free time increased) cannot be determined from these data. However, television viewing is the first activity that respondents in these surveys themselves identify as the one they would most likely forego if something important arose (Robinson, 1977). That television viewing has recently increased more than any other free-time activity hardly conforms, then, to the portrait of a society confronting a time scarcity problem.

The 1965-1975 media-use comparisons instead suggest an acute time abundance problem, in which people spend most of their increased resource of free time on a media activity that is judged as enjoyable, but not particularly so in relation to print media activities. When asked to rate the enjoyment they derived from participation in various activities on a 1-10 scale, respondents in the 1975 survey rated television as providing considerably less enjoyment than reading—either of newspapers or of books and magazines. This held true across age groups, as shown in Table 7. The curvilinear patterns by age in rated enjoyment of television parallel those found for time spent watching television.

Table 7 also reveals that reading of both newspapers and books-magazines is rated progressively more enjoyable by older age groups. However, the gap between newspaper enjoyment and book-magazine enjoyment narrows considerably with increasing age. However, the gap is maximal for the 18-29 age group and, in conjunction with the data in Figure 1, may be taken as evidence that younger adults prefer print media with more specialized and individualized content.[19] Unfortunately, no comparable media gratifications data from the 1965 survey (or other sources to our knowledge) are available to determine whether this pattern was equally true for earlier generations of younger readers—i.e.,

TABLE 7

ENJOYMENT OF MEDIA BY AGE
(Adjusted for other demographic factors by MCA)

	Enjoyment of Activity (Rated on a scale from 0= dislike a great deal to 10= like a great deal)		
Age	Television	Books/ Magazines	Newspapers
18-29 years	6.1	7.1	6.4
30-39 years	5.9	7.3	6.7
40-49 years	5.8	7.4	7.2
50-64 years	6.3	7.6	7.6

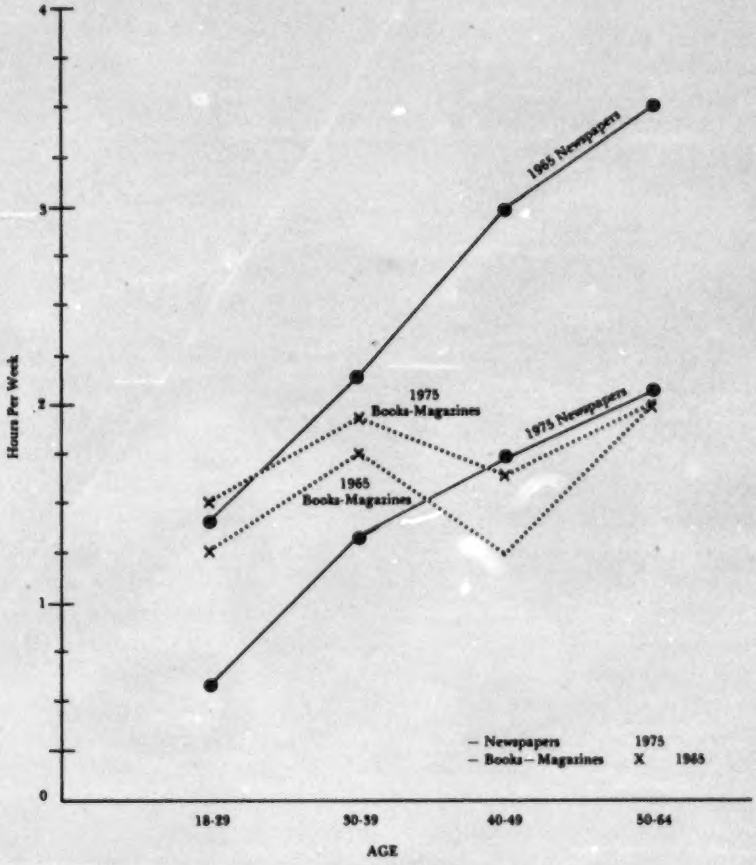
whether older people also preferred reading books and magazines to newspapers in early adulthood, but later grew to find both equally enjoyable.

If it is the more specialized content and format that attracts today's younger adults to books and magazines rather than to newspapers and if this preference continues, then newspapers will indeed have to examine different marketing strategies in the years to come (e.g., Meyer 1978). However, it is still not clear how much younger age groups will eventually enter the market for news, much less for newspapers. The Table 3 data suggest that at the static level once use of one news medium begins, use of the other will follow, but the cross-time analyses do not.

Research evidence has converged on the conclusion that in its initial stage television's impact on print media was limited to entertainment-fantasy content. The present data suggest that in its second stage American television's increased emphasis on news and reality-oriented content made inroads on newspapers, a medium that 15 to 30 years ago seemed immune to its influence in terms of audience time. Reading of books and magazines did not suffer during this second stage and perhaps has also flourished at the newspaper's expense. However, these two specialized media are the ones most likely to be threatened as television moves toward its "third stage": to package more efficiently the type of specialized

FIGURE 1

Weekly Time Spent with Newspapers and Books-Magazines by Age: 1965 and 1975



and individualized content in books and magazines via tapes and disks.[20] Figure 1 provides some evidence to suggest that television in its present form has already encroached on this media function among the older segment of the audience.

NOTES

1. The time devoted to television after its arrival was also greater than the time now spent on all the previous print and broadcast media combined. Moreover it was even greater than the time formerly devoted to these functionally equivalent media. Thus, even activities that were not direct functional equivalents (i.e. in terms content or social purpose) appeared to be affected by television: In a multination comparison across 12 countries, set owners consistently reported less time visiting, sleeping and doing gardening, yard and animal care (Szalai, *et al.*, 1972). Bogart (1956) and Belson (1969) had found many of the same patterns of change in non-media activities in the early days of television in the United States and Great Britain, respectively.

2. One study (Shaw 1973) did find that media use and credibility were correlated. Many other studies have questioned the interpretation of the Roper question. Ryan (1973) found that credibility was differentially linked to geography and topic, newspapers being believed more for science and state public affairs news and TV believed more for news of student demonstrations. Abel and Wirth (1977) found respondents regarding TV (43%) more believable than newspapers (23%) in presenting local news with one third not being able to make a choice; the figures contrast with the 51% favoring TV and 20% favoring newspapers in a Roper study (November, 1974). Greenberg and Roloff (1974) criticized the Roper credibility question by pointing out that the respondent's cognitive reference point for TV is probably national network TV news rather than local TV news. Stempel (1973) sought credibililty information separately for local, state, national and international news, and found that newspapers fare better in this kind of comparison; newspapers were about as believable as TV for local news. Singletary (1973) found that media credibility was not a simple, well-differentiated system but a highly complex system of factors.

3. It is posssible at the same time that television has not only usurped but subverted the headline role of newspapers. Not only can viewers feel assured that if something important happens they will find out about it efficiently on the television news programs (or the five-minute "updates"), but that if something truly important happens, their entertainment programs will be interrupted to bring it to their attention. With no such signal from television and with the news appearing to be less exciting or more predictable than what the viewer has already seen over the last decade, viewers may be lulled into a feeling that there will be nothing worth following up in more detail in the newspaper.

4. Bogart (1975b) noted that the tendency to think of the household as the unit of consumption for newspapers is misleading now that more people live alone or in previously less conventional arrangements. In 1960 there were 209 adults (age 18 or older) and 121 children for every 100 households, while the 1973 figure was 201 adults and 100 children. Paralleling this change is the consumption of newspapers by household; for every 100 families in 1970, 130 newspapers were sold daily, while the figure was 116 in 1973.

5. Stone (1977) attempted to construct a formula which could predict daily newspaper circulation and found that home ownership was the best predictor.

Denbow (1975) also found that household income, county residence and ownership to be predictors of subscribing behavior in somewhat small cities and surrounding rural areas. According to Stone's analysis, newspaper subscriptions are an important measure of the residents' stake in the local community. The attributes usually associated with newspaper readership (length of residence in community, high education, upper income, and having school-age children) are also generally assumed to be present in homeowners. Stone emphasizes that the link between commitment to the local community and newspaper subscription is a matter of utility; readership is necessary for involvement.

6. Grotta (1977), however, found on an aggregate basis price increases were not related to circulation decreases. A host of other factors have been linked to newspaper readership. Schweitzer, *et al.* (1977) found similarities of the following content characteristics associated with higher proportions of two-newspaper households: local editorials, page-one local stories, special bureaus, stock exchange listings, special columns, etc. Bryant, *et al.* (1976) found four attitudes related to "liking" and reading particular newspapers: traditional values, "life is good," dissatisfaction with government and dissatisfaction with mass media. Larkin, *et al.* (1977) found that young adults—with different lifestyles than older adults—were less "newspaper oriented," more likely to have apathetic attitudes towards newspapers. Cushing and Lemert (1973) found that students were more likely than non-students to cite magazines and newspapers as preferred news sources.

7. Moreover, there has been little evidence of increased leisure time being available through reduction in the work week, which has remained virtually constant since 1945, according to estimates of the work week that workers provide the government (Owen 1976).

8. However, simultaneous activities are recorded, as are "secondary activities," i.e., when reading is reported as being combined with or accompanying a more prominent activity like eating meals or commuting to work. In the 1965-66 study, 16 minutes per day of secondary activity reading was reported and 39 minutes of secondary activity TV viewing. Roughly the same figures were found in the 1975 replication.

9. For time spent in the 96 various activities, the intercoder reliability was .86 for the American study.

10. In addition, a synthetic week's data were collected from 473 of the spouses of these respondents to give an effective sampling base of 1,451 respondents for certain of the analyses which follow.

11. Roughly the same percentages of news media usage in the two waves were reported. In the Fall, 67 percent reported using newspapers on the diary day compared to 70 percent when the question was repeated in Wave 3. TV news exposure was reported by 53 percent in the Wave 1 and 51 percent in Wave 3. A 1974 national study of TV news viewing and newspaper reading found that 48% of the adult population watched some TV news programs on an average weekday (Rarick, 1975, pp. 30-31). The proportion viewing ranged from 5% in the morning to 27% in the early evening and 25% in the late evening. TV news viewing was correlated with age and education much as it was in Table 1.

12. Moreover, the correlation between daily use of the two media across time is increasing: in the 1965-66 study, the Tau-beta correlation between newspaper and TV exposure was only half as large (.09) as in 1975-76. This could indicate either an increase in the proportion of dual users, or a dropout of single media news users on a particular day. In either event, the increase indicates a trend toward more concentrated usage of the two news media. As in Table 3, the 1965-66 correlations were relatively constant by age.

13. The specific free time activities are described in Szalai, *et al.* (1972; pp. 561-65). The definition has been found to relate to respondent's own perceptions: both of *activities* people described that they wanted to do rather than that they had to do, and of *individuals*—people who reported that they generally "seldom" felt rushed to do the things they had to do reported significantly more free time in their diaries than those who "sometimes" or "always" felt rushed (Robinson 1977).

14. Although there were only 56 full-time students in the 1975 sample, they reported more than 45 hours per week of free time and well under an hour's newspaper reading. However, their time spent reading books and magazines (outside of homework) was even lower than their time spent reading newspapers. While their television time is also below that reported by working adults, their attendance at movies is markedly higher—even in comparison to non-students of their age.

15. The term functional equivalence remains an unfortunately vague one, one that arises as a convenient post-hoc explanation rather than precisely identifying when and how media use will change. This is true within the present paper as well as more generally. Thus, the relationship between TV news viewing and newspaper reading can become a complex "trade-off" theoretically. First, we have the functional equivalence of the general media behaviors themselves, whereby either reading or viewing can be used for purpose of relaxation and entertainment. The content vs. behavior distinction also arises in the extent to which people seek redundancy or variety; a post-hoc explanation can easily confuse the two if no distinction is made between the behavior and the content, e.g., reading news and watching TV news could be redundancy seeking in terms of content or variety seeking in terms of behaviors. Similarly, high consumption of all mass media may be redundancy-seeking, while a mixture of leisure-time activities that includes jogging, newspaper reading, card playing and gardening may be variety-seeking in terms of activities. Added to these distinctions are the differential patterns obtained with varying time frames; variety-seeking of behaviors may occur during a daily routine, but redundancy seeking of content may occur across the week.

16. However, the evening five minute "updates" recently inserted in prime time undoubtedly reach many viewers who do not watch the earlier evening news programs.

17. This is according to consumer expenditure data from the Department of Commerce (1976) publication on the survey of current business. This publication shows 1960s consumer expenditure data which have been revised from the figures available to McCombs. The figure in 1955 for consumer media expenditures was also 2.7 percent.

18. There is no necessity, of course, that there be a one-to-one correspondence between consumer uses of time and consumer uses of money. Several popular uses

of free time involve minimal expenditure of money—relaxation, visiting, voluntary organizations, religious activity and walking. While several pieces of expensive leisure equipment (e.g., boats, campers) may sit unused for long periods of time, television can be viewed for years on a portable set costing well under $100. The decline in money expenditures for books reported between 1965 and 1975 is not reflected in decreased time spent reading books that people report. Hence, that the increase in recreation or television expenditures can be matched to free time expenditure is a convenient finding, but consumer expenditures of time need not reflect nor be reflected by consumer expenditures of money.

19. The differences are not simply due to the higher education of younger adults, since this factor is controlled by MCA.

20. In particular, television has yet to develop its most specialized potentials—cable, video-cassettes and videodisks. These can eventually develop into the functional equivalents of books and magazines, and in more attractive and efficient formats with the print advantage of playback for enjoying or absorbing their specialized content. As with television news, older people may be socialized into these new forms of television more readily then younger people. Older people already appear to have been attracted disproportionally to current television fare in magazine-format programs like 60 Minutes or book portrayals such as Roots. This in part may account for the lack of increased use of books and magazines among 50-64 year olds in Figure 1.

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